Electrical Automation and Robotics Technology, A.A.S.

Requirements

The EART program prepares Electrical Automation Technicians to troubleshoot, wire, repair, adapt, maintain, program (PLC's & PAC's), and control large automated electrical systems found in Industrial and Manufacturing Industries worldwide. The EART Technician will work with DC & AC motor controlled machines; Programmable Logic Controlled (PLC's) and Programmable Automation Controlled (PAC's) machines, systems, and devices; Hydraulic and pneumatic controlled machines; conveyor, fluid, and bulk storage systems; flex, soft start, and variable frequency drives; Robots; servo, and stepper motors. Because of their highly skilled hands on training the EART student is in high demand from many industries.

Total Program Credits: 63

<table>
<thead>
<tr>
<th>General Education Requirements:</th>
<th>14 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 1010 Introduction to Academic Writing</td>
<td>3</td>
</tr>
<tr>
<td>or ENGH 1005 Literacies and Composition Across Contexts (5.0)</td>
<td></td>
</tr>
<tr>
<td>Any approved Humanities or Fine Art</td>
<td>3</td>
</tr>
<tr>
<td>Any approved Behavioral Science, Social, or Political Science Distribution Course</td>
<td>3</td>
</tr>
<tr>
<td>Any approved Physical Education, Health, Safety, or Environment Course</td>
<td>2</td>
</tr>
<tr>
<td>Any approved Biology or Physical Science</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discipline Core Requirements:</th>
<th>49 Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EART 1050 DC Electrical Math</td>
<td>2</td>
</tr>
<tr>
<td>EART 1060 AC Electrical Math</td>
<td>2</td>
</tr>
<tr>
<td>EART 1130 Applied Electrical Theory</td>
<td>4</td>
</tr>
<tr>
<td>EART 1180 Applied Electrical Lab</td>
<td>4</td>
</tr>
<tr>
<td>EART 1250 Industrial Electrical Code</td>
<td>2</td>
</tr>
<tr>
<td>EART 1280 Electric Motor Control</td>
<td>4</td>
</tr>
<tr>
<td>EART 1285 Electric Motor Control Lab</td>
<td>4</td>
</tr>
<tr>
<td>EART 2110 Industrial Electronics I</td>
<td>4</td>
</tr>
<tr>
<td>EART 2115 Industrial Electronics I Lab</td>
<td>2</td>
</tr>
<tr>
<td>EART 2150 Industrial Hydraulics and Pneumatics</td>
<td>2</td>
</tr>
<tr>
<td>EART 2155 Industrial Hydraulics and Pneumatics Lab</td>
<td>1</td>
</tr>
<tr>
<td>EART 2160 Industrial Electronics II</td>
<td>2</td>
</tr>
<tr>
<td>EART 2165 Industrial Electronics II Lab</td>
<td>1</td>
</tr>
<tr>
<td>EART 2250 Industrial Programmable Logic Controllers--PLC's</td>
<td>4</td>
</tr>
<tr>
<td>EART 2255 Industrial Programmable Logic Controllers--PLCs Lab</td>
<td>2</td>
</tr>
<tr>
<td>EART 2270 Industrial Programmable Automation Controllers--PACs</td>
<td>2</td>
</tr>
<tr>
<td>EART 2275 Industrial Programmable Automation Controllers--PACs Lab</td>
<td>1</td>
</tr>
<tr>
<td>EART 2280 Process Control Instrumentation</td>
<td>2</td>
</tr>
<tr>
<td>EART 2285 Process Control Instrumentation Lab</td>
<td>1</td>
</tr>
<tr>
<td>EGDT 1040 Fundamentals of Technical Engineering Drawing</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduation Requirements:

1. Completion of a minimum of 63 semester credits
2. Overall grade point average of 2.0 (C) or above, with no core course below a 'C-'.
3. Residency hours: minimum of 20 credit hours through course attendance at UVU
4. Completion of GE and specified departmental requirements
**Electrical Automation and Robotics Technology, A.A.S.**

**Graduation Plan**

*NOTE: This Graduation Plan has not been updated by the Construction Technologies Department. Please contact the department for an updated plan.*

This graduation plan is a sample plan and is intended to be a guide. Your specific plan may differ based on your Math and English placement and/or transfer credits applied. You are encouraged to meet with an advisor and set up an individualized graduation plan in Wolverine Track.

Milestone courses (pre-requisites for a course in one of the subsequent semesters) are marked in red and italicized.

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EART 1050*</td>
<td>Applied Electrical Math</td>
<td>5</td>
</tr>
<tr>
<td>EART 1130*</td>
<td>Basic Electrical</td>
<td>5</td>
</tr>
<tr>
<td>EART 1180*</td>
<td>Basic Electrical Lab</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 1010  OR ENGH 1005</td>
<td>Intro to Writing OR Literacies and Composition Across Contexts</td>
<td>3</td>
</tr>
</tbody>
</table>

Semester total: 18

Notes: The semester you start will determine your schedule all 4 semesters; only for EART courses. Cohort Schedule: Fall semester start: M-F, 7AM-12PM; Spring Semester Start: M-F, 1PM-6PM. Overall grade point average of 2.0 (C) or above, with no core course below a 'C-'. *These courses are co-requisites to each other and must be taken together.*

<table>
<thead>
<tr>
<th>Semester 2</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EART 1280*</td>
<td>DC &amp; AC Machines for EART Technicians</td>
<td>5</td>
</tr>
<tr>
<td>EART 1285*</td>
<td>DC &amp; AC Machines Lab for EART Technicians</td>
<td>5</td>
</tr>
<tr>
<td>EGDT 1040*</td>
<td>Fundamentals of Technical Engineering Drawing</td>
<td>3</td>
</tr>
<tr>
<td>SS/PS/BEH</td>
<td>Any approved Social Science</td>
<td>3</td>
</tr>
</tbody>
</table>

Semester total: 16

Notes: SS/PS/BEH - TECH 2000 Recommended. Overall grade point average of 2.0 (C) or above, with no core course below a ’C-’. *These courses are co-requisites to each other and must be taken together.*

<table>
<thead>
<tr>
<th>Semester 3</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EART 2110*</td>
<td>Industrial Electronics for EART Technicians I</td>
<td>4</td>
</tr>
<tr>
<td>EART 2115*</td>
<td>Industrial Electronics for EART Technicians I Lab</td>
<td>2</td>
</tr>
<tr>
<td>EART 2150*</td>
<td>Industrial Hydraulics and Pneumatics</td>
<td>2</td>
</tr>
<tr>
<td>EART 2155*</td>
<td>Industrial Hydraulics and Pneumatics Lab</td>
<td>1</td>
</tr>
<tr>
<td>EART 2250*</td>
<td>Industrial Programmable Logic Controllers--PLCs</td>
<td>3</td>
</tr>
<tr>
<td>EART 2255*</td>
<td>Industrial Programmable Logic Controllers--PLCs Lab</td>
<td>2</td>
</tr>
<tr>
<td>BB/PP</td>
<td>Any approved Biology and Physical Science</td>
<td>3</td>
</tr>
</tbody>
</table>

Semester total: 17

Notes: Overall grade point average of 2.0 (C) or above, with no core course below a ’C-’. *These courses are co-requisites to each other and must be taken together.*

<table>
<thead>
<tr>
<th>Semester 4</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EART 2160*</td>
<td>Industrial Electronics for EART Technicians II</td>
<td>3</td>
</tr>
</tbody>
</table>

Degree total: 66

Notes: PE/HLTH - HLTH 1100 or PES 1097 Recommended. Overall grade point average of 2.0 (C) or above, with no core course below a ’C-’. *These courses are co-requisites to each other and must be taken together.* After completing the AAS in EART, students can matriculate to the Bachelor of Science in Technology Management or Mechatronics Engineering Technology.